

Nigerian Journal of Clinical Practice
Sept. 2010 Vol. 13(3):326-330

REVIEW OF OBSTETRICS GENITO-URINARY FISTULAE IN THE UNIVERSITY OF CALABAR TEACHING HOSPITAL CALABAR, NIGERIA

*EI Ekanem, *AD Ekanem, *JE Ekabua, *SJ Etuk, **A Essiet

*Departments of *Obstetrics and Gynaecology and **Surgery, University of Calabar Teaching Hospital, Calabar, Nigeria*

ABSTRACT

Background: Obstetric fistulae with Urinary incontinence are one of the most distressing maternal morbidities. It is associated with physical and social deprivation such as wife abandonment and violent reactions against the victims particularly in the developing countries of the world.

Aims and Objectives: To study the demographic and reproductive profiles as well as management of patients with obstetric fistulae in UCTH, Calabar, Nigeria

Patients and Method: A five-year retrospective study of case records of 37 patients managed in Maternity Annex of University of Calabar Teaching Hospital, Calabar Nigeria for obstetric genito-urinary fistulae was carried out.

Results: One in every 122 parturients during the period had fistula. Eleven (29.7%) were teenagers. Many patients were married (54.1%), nulliparous (59.4%), come from low socioeconomic class (72.9%) and did not utilize modern obstetric facilities properly. Many cases resulted from prolonged obstructed labour (51.4%) and 70.2% presented with total incontinence of urine. Eighteen (48.7%) were diagnosed within 6 month of delivery. The main types encountered included were vesico-vaginal (34.4%) or complex (10.8%) fistulae who were managed conservatively (21.6%) or with bladder repairs. Majority (29.7 %) were referred for further treatment.

Conclusion: Parturient in Calabar still suffer from this age long obstetric morbidity mainly due to poor utilization of modern obstetric care facilities. Results of treatment are largely unsatisfactory; therefore resources should be channeled towards prevention.

Key Words: Obstetrics, Genito-urinary, fistula.

(Accepted 15 August 2009)

INTRODUCTION

Urogenital fistula is one of the most serious and distressing maternal morbidities.^{1,2} In developed countries of the world the problem is so rare that most obstetricians will go through their entire career without seeing obstetric fistula and when it occurs, it is usually a consequence of complex surgical intervention at delivery.^{3,4} It is therefore, commonly anticipated, easily recognized and promptly treated. The patients do not often suffer long term complications of this problem.^{5,6} In developing countries, however, the problem occurs mostly in young, poor patients who suffer from neglected prolonged obstructed labour with limited access to modern obstetric care. These patients, therefore, present in the hospital for treatment with urinary incontinence sometimes years after the injuries.^{1,2,7-9} Most of them are abandoned by relatives to become victims of social outcast and to suffer other violent reactions from a hostile society. They also fail to realize their dreams of becoming mothers, as most of

their babies are stillborn.^{7,10} These evoke intense physical and psychological depressions.

Before 17th century, this age long problem was hopeless with efforts at treatment mainly directed at procuring receptacle for collection of urine at the vulva and patients neglected to their own plight.³ Since the first attempt at repair of vesicovaginal fistula by H. Van Roonhuyse in 1663, great advances and innovations have been introduced by various workers, such as George Hayward (1839), Marion Sims (1852), Trendelenburg (1890), Kelly (1893), Latzko (1942) and Martins towards the management of this problem.^{3,8,11} Huge successes have been recorded in the treatment of this condition in recent times such that most patient are made to regain continence even in most complicated and complex fistulae.^{4,8,12,15} The success of treatment in modern times depends on a number of factors including proper patient selection, experienced surgical team, dedicated nursing care and proper integration of the patient to the general society.^{1,2,15} These require regionalization of treatment centres for optimal specialized care. This is not readily obtained in most poor developing countries. Efforts

Correspondence: Dr EI Ekanem
Email: etimdr@yahoo.co.uk

should, therefore, be directed toward effective preventive programs targeting the most vulnerable group of women.

This study was carried out to review the demographic and reproductive profiles as well as management of patients with obstetric genito-urinary fistulae in a tertiary institution in a developing country. It is hoped that the outcome of this research will assist in the planning of effective preventive strategies and maximizing care of those who sustained this injuries during child birth.

PATIENTS AND METHODS

This is a retrospective study of patients with obstetric fistulae in the University of Calabar Teaching Hospital (UCTH) Calabar over a five year period (1st January 2001 to 31st December 2005).

All the patients with a diagnosis of genito-urinary fistulae following delivery were included in the study.

Those excluded from the study were:

1. patients who had fistulae following termination of pregnancy before 28 weeks gestation.
2. non-pregnant women with fistulae
3. pregnant women who had traumatic injuries not related to pregnancy or its management.
4. patients whose diagnosis was not clear or confirmed by appropriate procedure.
5. those whose records were not complete for analysis.

The case files of these patients were retrieved from Medical records department for indebt study. Information was also obtained from labour wards and operation theatre records. Information abstracted included age, occupation, marital status, parity and booking characteristics of the patients. Mode of presentation, type of fistulae and mode of definitive treatment were also noted.

The diagnosis and type of fistulae were made following the findings at:

1. examination under anaesthesia and transurethral instillation of diluted methylene blue dye into the urinary bladder.
2. three swabs test using white cotton wool ball placed in the vaginal fornix, mid vagina and at the introitus respectively with methylene blue dye study.
3. intravenous urogram or micturating urethrogram.
4. surgical evaluation.
5. cystoscopic examination

Complex fistulae describes patients with multiple urogenital fistulae which do not fit into routine descriptions.

Combined fistulae are genito-urinary fistulae with associated recto-vaginal fistulae with or without faecal incontinence.

Social class of the patients was based on Registrar General Five point occupational classification modified to suit our environment.¹⁶

RESULTS

A total of 4520 deliveries were conducted during the period and 49 genito-urinary fistulae were managed, of which 37 patients were due to obstetric causes. Thus, incidence of 8.2 per1000 or one in 122 deliveries was obtained. Also 75.5% of the 49 genital fistulae were obstetrics in aetiology.

Table 1 shows the sociodemographic and reproduction characteristics of patients with obstetric fistulae in Calabar. Many of them (51.4%) were between 20 and 30 years of age and 11(29.7%) were teenagers. Most patients (72.9%) were from low socioeconomic class (IV and V) while 20 (54.1%) were married. Twenty-two (59.4%) were nulliparous; 37.8% were unbooked and 48.6% attempted delivery outside orthodox medical facilities.

Table 1: Sociodemographic and Reproductive Characteristics of Patients with Fistulae.

Age (Years)	No	(%)
Less than 20	11	(29.7)
20 – 30	19	(51.4)
31 – 40	5	(13.5)
Above 40	2	(5.4)
Social Class		
I	2	(2.7)
II	3	(8.1)
III	6	(16.2)
IV	9	(24.3)
V	18	(48.6)
Marital Status		
Married	20	(54.1)
Unmarried	13	(35.1)
Others	4	(10.8)
Parity		
0	22	(59.4)
2 – 4	10	(27.0)
5 and more	5	(13.5)
Booking Status		
Unbooked	14	(37.8)
Interfered	10	(27.0)
Booked	5	(13.5)
Defaulters	8	(21.6)

Table 2: Predisposing Factors, and mode of Clinical Presentation and Duration of Symptoms of Patients with Fistulae.

Predisposing Factors	No	(%)
Prolonged obstructed labour	19	(54.4)
Operative Abdominal deliveries	5	(13.5)
Ruptured Uterus	4	(10.8)
Instrumental Vaginal Deliveries	3	(8.1)
Others	6	(16.2)
Clinical Presentation		
Total incontinence of urine	26	(70.2)
Copious Vaginal discharge	9	(24.3)
Intermittent Leakage of Urine	8	(21.6)
Vulval dermatitis/Vaginal Stenosis	6	(16.2)
Abdominal pains/swelling	3	(8.1)
Others	4	(10.8)

Interval between delivery and presentation in the hospital for Treatment.

Interval (months)

<6	18	(48.67)
7-12	12	(32.4)
>12	7	(18.9)

Table 3: Types and Mode of Treatment of Urogenital Fistulae in Calabar.

Types of fistulae		
Vesico-Vaginal	12	(34.4)
Combined	8	(21.6)
Uretero-Vaginal	4	(10.8)
Complex	4	(10.8)
Urethro-Vaginal	3	(8.1)
Utero-Vesical	2	(5.4)
Others	3	(8.1)
Modes of Treatment		
Conservative	8	(21.6)
Bladder & Vaginal repairs only	6	(16.2)
Ureteric excision/repairs	4	(10.8)
Urethroplasty	3	(8.1)
Others	5	(13.5)
Referrals	11	(29.7)

Table 2 shows the predisposing factors and clinical presentation of patients with fistulae. Most cases (54.4%) of fistulae were as a sequelae of prolonged obstructed labour, some followed operative vaginal (8.1%) or abdominal 5(13.5%) deliveries. Majority 26 (70.2%) presented with total urinary incontinence while intermittent leakage of urine, copious vaginal discharge were seen in 21.6% and 24.3% respectively. Eighteen patients (48.7%) presented within 3 months of delivery in the hospital and only 7 (18.9%) were seen after one year of sustaining the injury.

Table 3 shows the types and modes of treatment of fistulae in UCTH.

Twelve patients (34.4%) had vesico-vaginal fistulae while uretero-vaginal, combined and complex type were seen in 4(10.8%), 8 (21.6%) and 4 (10.8%) patients respectively. Most patients were managed conservatively (21.6%), bladder and vaginal repairs only in 6(16.2%) and 11 (29.7%) were referred elsewhere for further treatment.

DISCUSSION

The incidence of genito-urinary fistulae of 8.2 per 1000 deliveries or 75.5% of all genital fistulae in this study seems low when compared to findings obtained from developed countries.^{6,17} It is however, in accord with most reports from developing world where 65-83% of all fistulae are due to obstetric complications.^{2,7,9} In Katsina state of Nigeria obstetric fistula occurs in 3.5 per 1000 deliveries.

The incidence in this study is probably more as many cases may not be reported in the hospital for treatment considering the fact that there are an estimated 150,000 unrepaired cases of fistulae in Northern Nigeria alone.⁷ Also most patients may be reluctant to present themselves for treatment in this specialist centre due to financial constraints or social embarrassment from the stench of constant leakage of urine. Moreover many of these cases prefer a nearby missionary centre where the female genital fistulae are managed at reduced cost with proper rehabilitation programs. This study however shows that the problems of obstetric fistulae are not uncommon in the contemporary obstetric practice in developing countries.

In developing countries obstetric fistula is a problem of young, poor primiparous patients.^{1,2,7,9} Similar pattern was observed in this study. Also most of our patients were between 20-30 years of age (51.4%) and married (54.1%). These latter findings may be due to the fact that women of this age bracket dominate our obstetric population. Also the harmful socio-cultural practice of child marriage and subsequent childbearing are not encouraged in Calabar. It was however, of great advantage during the care of these patients as their husbands and other family members supported most of them compared to other reports of total rejection and abandonment.^{10,18}

This boosted their morale and made reintegration and rehabilitation easier and successful.

Most patients in the study were those that did not utilize the available modern obstetric care facilities effectively. This has also been reported by others from developing countries.^{7,8,9,19} Of particular note were those who registered for antenatal care but attempted to deliver outside hospital without trained attendants. These patients were kept for days with obstructed labour only to be referred to the

hospital after spontaneous delivery of stillborn babies with subsequent urinary incontinence. Obstetric mortality and morbidities have generally been reported to be common among unbooked patients.^{2,16,20} The role of this alternative care for women during pregnancy and child births is not well specified yet they attend to about 60-75% of parturient in these area.¹⁶

As reported by others in developing countries^{2,9,10} most cases in this study resulted from neglected prolonged obstructed labour and commonly presented with total incontinence of urine. However, 13.5% fistulae followed abdominal operative delivery including caesarean operations and hysterectomy for uncontrolled primary post partum haemorrhage. Also some patients were having repeat caesarean deliveries carried out by inexperienced surgeons in other institutions.

Unlike reports from developing countries^{3,7} where average duration of symptoms is about 7 years, 48.7% of patients in UCTH reported for treatment within 6 months of sustaining these injuries. This is not surprising as most of the patients were referred to this tertiary institution during labour and puerperium for other complications. Also patients with long standing complications are usually poor who may not afford the costs of a Teaching Hospital treatment and would prefer to go to nearby Missionary Hospital where treatments are free or at minimal cost.

Vesico-vaginal fistula was the commonest type followed by combined fistula and the complex type. Others have reported similar findings from developing countries.^{2,7,12,21} Two patients who had repeat Caesarean sections developed utero-vesical fistula and subsequently presented with menouria and infertility. Some of the patients in this study had complete destruction of the bladder neck and urethra following obstructed labour. Associated complications such as personnel nerve injury, significant vaginal scarring and stenosis, were also encountered in large number of patients. Others also experienced these in Northern Nigeria and other developing countries.^{8,9,18,20} Therefore apart from managing the urinary fistulae, these associated problems were also treated for proper rehabilitation of the patients.

Most patients (21.6%) in this study were managed conservatively or prophylactically with prolonged continuous bladder drainage with good results. This was particularly useful in patients whose labour and deliveries were managed in UCTH and those with small fistula of less than 1 cm. Majority (29.7%) were either referred to nearby Missionary Hospital or absconded without treatment this was largely due to financial constraints. Unlike the report from other centres,^{2,6,9,14,21,22} the results of bladder repairs were largely unsatisfactory. This was very disappointing

considering the fact that most of these patients presented early for treatment. However, most of the bladder defects were large with average size of 4cm and complex type with significant scarring which made access to the defect difficult. The management of this type of injuries requires advanced techniques and technology such as tissue grafting and insertion of devices^{4,5,12,13} which were limited in our center at time these patients were managed. As reported by others^{3,12,13,23,24} the ureteric and urethral repairs were very successful. Very experienced urologists in this center usually performed these operations.²⁴ Some of the patients were referred to the Teaching Hospital after several attempts have failed to secure continent from other centres. Cases done included re-implantation of ureters, uretero-neocystostomy and urethroplasty. There was no case of urinary diversion performed as there was no case that required this very important procedure.

The study suffers the shortcoming of being retrospective, hospital based and with small sample size. A prospective community based multi-centre study is being planned to assess management outcome of complex and complicated obstetric fistulae.

This age long obstetric morbidity is still prevalent among underprivileged women who have sociocultural and religious restrictions to access modern obstetric care in this 21st Century in Calabar. The result of surgical management of the commonest type is poor due to lack of appropriate technology and requisite expertise to handle them.

It is recommended various preventive strategies to obstructed labour such as comprehensive application of partograph in labour management. Training of Traditional birth Attendants and other alternative obstetric care personnel should be undertaken until such a time when enough trained midwives are available to take over from them.

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